Claims:

1. A portable winch, comprising:

a mounting frame positionable at a top opening of a hole;

a telescoping mast including a plurality of hollow, nested, top and bottom mast sections;

a mounting assembly by which the top mast section is secured to the mounting frame;

a powered winch unit mounted on the frame, including a drive unit and a cable, positioned so that the cable can be fed into the telescoping mast; and

mechanical means connected to the frame for raising and lowering the mast into and out of the hole by collapsing and uncollapsing the telescoping mast while it is secured to the mounting frame.

2. The portable winch of claim 1, wherein the mechanical means for raising and lowering the mast comprises the powered winch unit.

3. The portable winch of claim 1, wherein the mechanical means for raising and lowering the mast comprises a secondary cable and means for winding and unwinding the secondary cable effective to progressively raise and lower the telescoping mast.

4. The portable winch of claim 1, further comprising a foot assembly mounted at a remote end of the telescoping mast, the foot assembly including a frame holding a sheave for redirecting the cable.

5. The portable winch of claim 4, wherein the foot assembly further includes a pair of legs mountable on opposites of the sheave in a manner effective to brace the mast assembly against a surface.

6. The portable winch of claim 1, wherein the mounting frame comprises a vehicle body that includes wheels for transporting the portable winch.

7. The portable winch of claim 1, wherein the mounting assembly includes a pivot positioned for pivoting the mast assembly from a substantially horizontal storage position to a substantially vertical position for deployment.

8. The portable winch of claim 7, wherein the mounting assembly further comprises a pivoting bracket that secures the mast assembly to the pivot, and a hydraulic cylinder connected to the mounting frame and pivoting bracket to pivot the mast assembly upon actuation of the hydraulic cylinder.

9. The portable winch of claim 1, wherein the telescoping mast further comprises a series of nested mast sections and a corresponding number of releaseable latches that engage aligned holes in adjacent mast sections to secure the mast assembly in a deployed position.

10. The portable winch of claim 1, further comprising a stop mechanism that prevents complete removal of one telescoping mast section from another during lowering of the mast.

11. A portable winch, comprising:

a mounting frame positionable at a top opening of a hole;

a power winch unit mounted on the mounted frame, including a drive unit, a cable and a cable storage spool mounted on the frame for winding up cable pulled in by the drive unit and paying out cable advanced by the drive unit;

a pivot mounted on the frame;

a telescoping mast including a plurality of nested, top and bottom mast sections, mounted to the mounting frame by the pivot;

a guide assembly including a sheave that guides the cable from the drive unit to the bottom mast section; and

means for releasably securing a leading end of the cable to the bottom mast section, whereby the mast can be lowered into the hole beneath the frame by pivoting the mast into position for lowering, connecting the leading end of the cable to the mast, and then operating the winch unit to lower a bottom section of the mast, and the mast can be

raised out of the hole by connecting the leading end of the cable to the bottom mast section and pulling the cable with the winch unit to collapse the telescoping mast.

12. The portable winch of claim 11, wherein the mounting frame comprises a vehicle body that includes wheels for transporting the portable winch and one or more jacks for securing the mounting frame at a work site to one side of a hole.

13. The portable winch of claim 11, further comprising a foot assembly mounted at a remote end of the telescoping mast, the foot assembly including a frame holding a second sheave for redirecting the cable through a pipeline and a legs mountable in a manner effective to brace the mast assembly against a surface.

14. The portable winch of claim 11, further comprising a pivoting bracket which secures the mast assembly to the pivot, and a hydraulic cylinder connected to the mounting frame and pivoting bracket to pivot the mast assembly upon actuation of the hydraulic cylinder.

15. The portable winch of claim 11, wherein the telescoping mast further comprises a series of nested mast sections and a corresponding number of releaseable latches that engage aligned holes in adjacent mast sections to secure the mast assembly in a deployed position.

16. A method for installation of an underground pipe according to the invention using a portable winch such as the foregoing includes the steps of:

positioning a mounting frame of the portable winch at a top opening of a hole;

pivoting a telescoping mast including nested, top and bottom mast sections, which mast is mounted to the frame by the pivot, from a horizontal position to a vertical position;

lowering the bottom mast section into the hole by operating a mast control system that includes a mast cable and a mechanism that gradually pays out the mast cable to lower the bottom mast section;

securing the mast in the hole for horizontal pulling using a pulling cable wound over a sheave mounted on the mast;

feeding the pulling cable through a pipeline adjoining the hole and securing a pipe bursting mole having a replacement pipe attached to the cable;

operating a powered winch unit mounted on the frame to pull the pulling cable, mole and replacement pipeline through the pipeline in order to burst the pipeline and replace it with the replacement pipe;

unsecuring the mast in the hole so that is can be removed from the hole;

raising the bottom mast section up from the hole by operating the mast control system to gradually pull the lower mast section upwardly and collapse the telescoping mast; and

pivoting the mast about the pivot from a vertical position to a horizontal position.